

REMARKS

The Office Action and prior art relied upon have been carefully considered. In an effort to expedite the prosecution claims 1-8 have been cancelled and rewritten as new claims 9-16, these claims avoiding the informalities indicated by the Examiner. In view of the above amendment, applicant believes the pending application is in condition for allowance.

Claims 1-8 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner indicated the allowability of claims 1 subject to the correction of informalities and they have been attended to in this amendment.

Claims 7-8 were rejected under 35 U.S.C. § 103(a) as being indefinite over Bakan et al. (GB 2,113,199A) in view of Long et al. (5,248,419) and Barrick et al. (4,377,486).

Although there may be some patents that describe processes for treating contaminated sewage sludge there is no process that is commercially available. This indicates that the technology or its cost is not yet at a satisfactory level.

The Examiner has misread Bakan (GB patent 2113199). It is primarily aimed at removing Chromium from waste liquid from tanneries whereas the present invention deals with a wide range of contamination from many industries.

The Bakan patent discloses

- 1) a first treatment stage that is broadly similar to step a) of now cancelled claim 1;
- 2) a separation equivalent to step b) of claim 1;
- 3) treats the separated liquid in a step similar to step c) of claim 1;
- 4) separates the solids and recycles the liquid similar to step h) of claim 1;

5) treats the solids to adjust the pH of the decontaminated sludge similar to step g) of claim 1.

However as admitted by the Examiner there is no disclosure of the acid treatment in a closed vessel with a source of ozone in the headspace.

Further there is no disclosure of recycling the liquid from the heavy metal precipitation stage as required in step f) of claim 1.

Long discloses a closed vessel acid treatment with a pH above 2 rather than below 2 and at a solids content below that of the present invention. Oxygen or ozone are mixed with the sludge to oxygenate the sludge. This is a variation on the conventional oxidation of sewage. There is no concern in Long with removing dissolved heavy metals from the sewage. This is a very different process to Bakan which uses sufficient acid to have a pH below 1 because it is seeking to dissolve heavy metals. One skilled in the art would be reluctant to use the process of Bakan in the vessel as disclosed in Long because the processes are for very different purposes.

In the present invention ozone is introduced into the head space to react with sulfur containing gases created during the acid treatment of sulphur containing sludges. The reaction product is sulphuric acid which is used in the process. Long does not introduce the ozone into the headspace because Long is focused on oxidizing the sludge not gaseous reaction products.

Barrick is also a sewage treatment process using a pH above 2. Again one skilled in the art would not combine the disclosures of Bakan and Barrick because the processes are so different. Again Barrick does not disclose introducing ozone into the headspace above the liquid in the closed reaction vessel because it is concerned with oxidizing the sludge not the sulphur containing gases generated by an acid treatment.

These differences make the process of this invention applicable to a wider range of metal contaminants than in the process proposed by Bakan and maintains the economics of operational costs which are essential to having the technology adopted.

Thus the differences between the presently claimed invention and the prior art are inventive.

In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185, under Order No. 21854-00061-US1 from which the undersigned is authorized to draw.

Dated: October 22, 2007

Respectfully submitted,

Electronic signature: /Morris Liss/
Morris Liss

Registration No.: 24,510
CONNOLLY BOVE LODGE & HUTZ LLP
1875 Eye Street, NW
Suite 1100
Washington, DC 20006
(202) 331-7111
(202) 293-6229 (Fax)
Attorney for Applicant